

Subject: PG Elective course for Environmental Science/biological science/chemistry/Agriculture

Course: Biomass characterization

Development Team

Course Coordinator: Dr.K. Arunkumar,Ph.D

Associate Professor & Head, Department of
Plant Science, Central University of Kerala,
Kasaragod-671320, Kerala, India

Content Writer: Dr.K. Arunkumar,Ph.D

Associate Professor & Head, Department of
Plant Science, Central University of Kerala,
Kasaragod-671320, Kerala, India

Content Reviewer: Prof. Dr.R.Rengasamy,Ph.D

Director Rtd
Centre for Advanced studies in Botany
University of Madras, Chennai-620 025,
India

Module Title : 6. Forms of Biomass: Gas

Id :BL/LHAM/6

Pre-requisites: Various forms of biomass, Landfills, Biogas, Hydrogen, Syngas.

OBJECTIVES: To study

- Various forms of gas biomass
- Sources of various gas biomass

KEYWORDS: Biomass forms, gas biomass, types of gas biomass, Natural gas, biogas, hydrogen fuel cell, syngas.

OUTCOME: At the end of this module one can understand what is gas biomass, how they are generation, various types of gas biomass, landfill gas, Global landfilling, hydrogen production, hydrogen fuel cell, syngas and its application. In this module we discuss about gaseous forms of biomass in detail in in the following topics. What is gas biomass? How they are generated, various types of gas biomass, landfill gas, hydrogen production, hydrogen fuel cell, syngas and its application.

6.1 What is gas biomass?

Gas biomass also known as biogas include gas formed from materials such as decaying plants, decomposing animal tissue and other slurry materials. Biogas is a renewable source of energy and can be used as fuel. Biogas is produced commercially by the microbial decomposition of organic wastes under anaerobic condition. Cattle dung is the main source for biogas production in India.